



LODI CITY COUNCIL

Carnegie Forum
305 West Pine Street, Lodi

"SHIRTSLEEVE" SESSION

Date: April 17, 2018

Time: 7:00 a.m.

For information regarding this Agenda please contact:

Jennifer M. Ferraiolo

City Clerk

Telephone: (209) 333-6702

Informal Informational Meeting

A. Roll Call by City Clerk

B. Topic(s)

B-1 Receive Presentation Regarding City's Use of Drones and Recent Lodi Police Foundation Donation of a Drone for Use by Police Department (PD)

C. Comments by Public on Non-Agenda Items

D. Adjournment

Pursuant to Section 54954.2(a) of the Government Code of the State of California, this agenda was posted at least 72 hours in advance of the scheduled meeting at a public place freely accessible to the public 24 hours a day.

Jennifer M. Ferraiolo
City Clerk

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CITY OF LODI COUNCIL COMMUNICATION

AGENDA TITLE: Receive Presentation Regarding the City's Use of Drones and the Recent Lodi Police Foundation Donation of a Drone for Use by the Police Department

MEETING DATE: April 17, 2018

PREPARED BY: Chief of Police

RECOMMENDED ACTION: Receive presentation regarding the City's use of drones and the recent Lodi Police Foundation donation of a drone for use by the Police Department.

BACKGROUND INFORMATION: The City of Lodi Police Department is embracing the current law enforcement trend of utilizing Unmanned Aircraft Systems (UAS) in crime interception activities. The San Joaquin County area does not have air support to aid in the search of wanted subjects and many times when dispatch calls for assistance from the California Highway Patrol or Sacramento County Sheriff's Department they are unavailable. A department owned UAS would help alleviate the need for air support in many situations.

Recently the Lodi Police Foundation donated a DJI Phantom 4 drone to the Police Department. The drone will assist the department in searching for missing persons, clear rooftops and yards for wanted subjects, and aid in other emergency management activities. As owners of a drone the department is assigning sworn personnel to training and testing to become certified UAS operators. The training and testing ensure that the department will properly operate the UAS and adhere to all airspace laws and regulations.

FISCAL IMPACT: Not applicable.

FUNDING AVAILABLE: Not applicable.

Tod Patterson
Chief of Police

APPROVED: _____
Stephen Schwabauer, City Manager



Lodi Police Department UAS Program



What is a UAS?

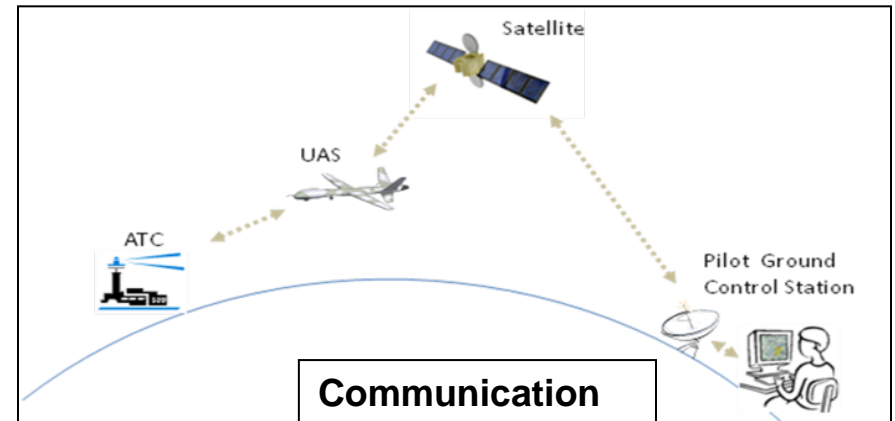
- **A UAS is a *system*:**

1. Unmanned Aircraft
2. Ground Control Station
3. Command & Control Link(s)



- **Also known as:**

- Unmanned Aerial Vehicle (UAV)
- Remotely Piloted Aircraft System (RPAS)
- RC Model Aircraft
- Drone



DJI Phantom 4



Phantom 4 Specifications

- Max Speed.....44 MPH
- Max Flight Time.....Approx. 28 minutes
- Max Service Ceiling.....19,685 feet

Why a UAS?

- San Joaquin County has no immediate air support
- Sacramento PD Helicopter
- Sacramento Sheriff Helicopter
- CHP Helicopter / Airplane



Why a UAS?

- Search large areas for missing persons
- Clear rooftops and yards for wanted subjects
- Eliminates the need to take fire equipment out of service
- Can be immediately deployed to clear search area quicker and more efficiently

Rooftop Search



Large Area Search

Missing Person



Accident Victim



Collision/Crime Scene photography



Emergency Management

Natural Disaster



Hazardous Incidents



Assist Lodi Fire



Options for Flying Your Drone Legally

SECTION 336

H.R.658 - FAA Modernization and Reform Act of 2012

- Fly for hobby or recreation ONLY
- Notify the airport and air traffic control tower prior to flying within 5 miles of an airport
- Never fly near emergency response efforts

Part 107 (14 CFR)

- Fly for recreational OR commercial use
- Register your drone
- Get a Remote Pilot Certificate from the FAA
- Don't fly in controlled airspace near airports without FAA permission

Part 107 Operating Rules

- Remote Pilot Certificate
- Registration
- Visual line-of-sight
- Daylight or civil twilight
- Not directly over people
- Must yield right-of-way to manned aircraft
- One UAS per pilot in command
- Max groundspeed of 100 mph
- Altitude 400' or 400' radius when over structure
- Airspace authorization for class B, C, D, and E surface areas



Waivable Rules under Part 107

- Operation from a moving vehicle or aircraft (§ 107.25)
- Daylight operation (§ 107.29)
- Visual line of sight aircraft operation (§ 107.31)
- Visual observer (§ 107.33)
- Operation of multiple small unmanned aircraft systems (§ 107.35)
- Yielding the right of way (§ 107.37(a))
- Operation over people (§ 107.39)
- Operation in certain airspace (§ 107.41)
- Operating limitations for small unmanned aircraft (§ 107.51)

Public Safety UAS Program

Blanket COA

- Operate outside of approved COA location
- At or below 400 feet AGL; and
- 5 nautical miles (NM) from an airport having an operational control tower; or
- 3 NM from an airport having a published instrument flight procedure, but not having an operational control tower; or
- 2 NM from an airport not having a published instrument flight procedure or an operational control tower; or
- 2 NM from a heliport
- Ability to obtain emergency COA (E-COA)



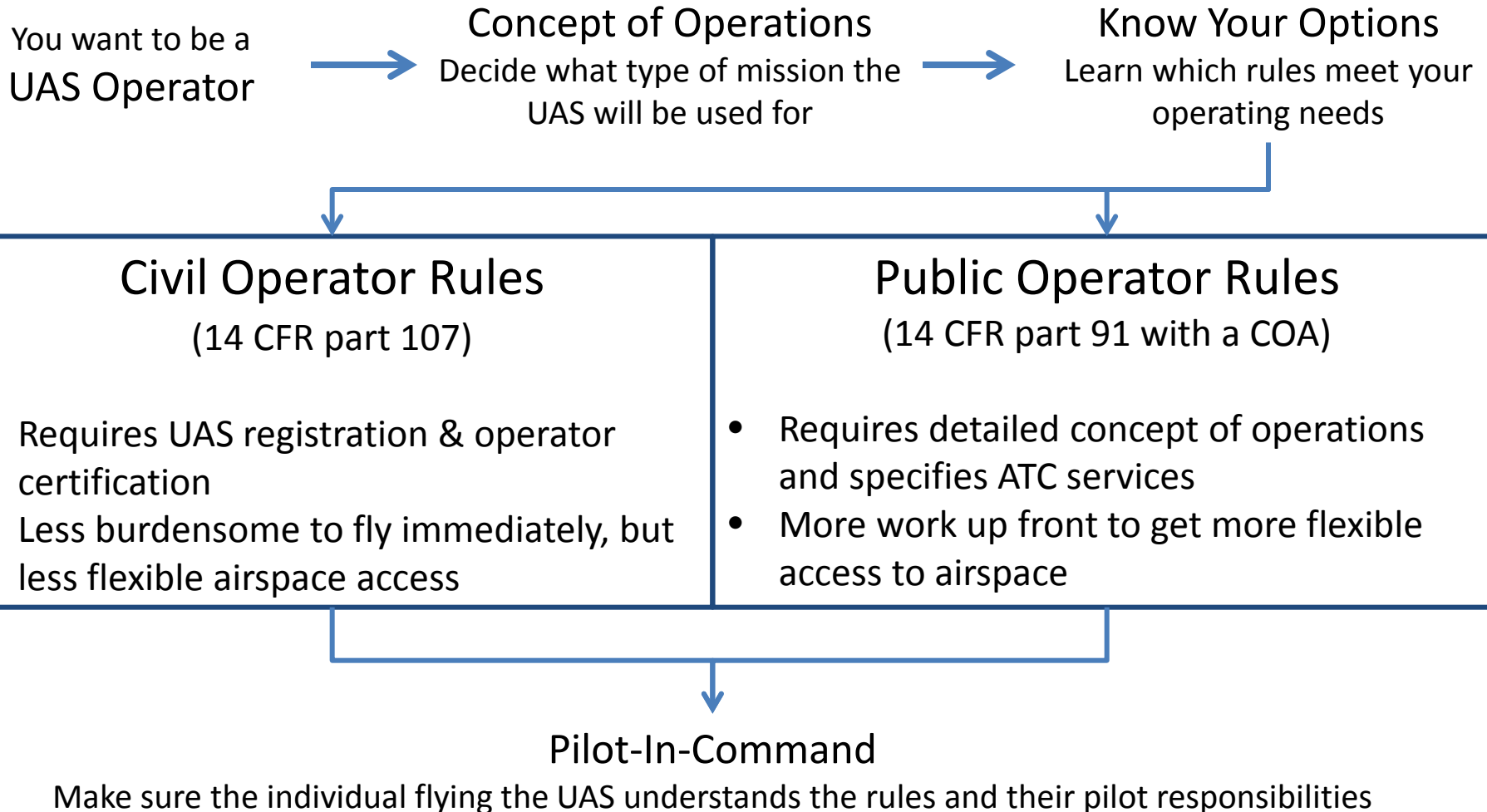
Government entities have 2 options for flying UAS:

Fly under the small UAS rule – follow all rules under 14 CFR part 107, including aircraft and pilot requirements

or

Obtain a blanket public Certificate of Waiver or Authorization (COA) – permits nationwide flights in Class G airspace at or below 400 feet, self-certification of the UAS pilot, and the option to obtain Emergency COAs (e-COAs) under special circumstances

Operating a UAS as a Public Entity



Legal Considerations

California v. Ciraolo (1986)

In a 5–4 decision the Court ruled that Santa Clara police officers, acting on an anonymous tip, did not need a warrant to use an airplane flying at 1,000 feet to look for marijuana plants in Dante Ciraolo's backyard. Having seen marijuana in the backyard from the plane, officers secured a search warrant and arrested Ciraolo, who pleaded guilty to the cultivation of marijuana. The Court held that the search did not violate Ciraolo's reasonable expectation of privacy.

Legal Considerations

Florida v. Riley (1989)

Decided a few years after *Ciraolo*, a plurality of the Supreme Court found that a Pasco County, Florida, police officer did not need a warrant to surveil a suspected marijuana grower's property from a helicopter flying at 400 feet

PRIVACY

LPD Policy 606.3 – PRIVACY

The use of the UAS potentially involves privacy considerations. Absent a warrant or exigent circumstances, operators and observers shall adhere to FAA altitude regulations and shall not intentionally record or transmit images of any location where a person would have a reasonable expectation of privacy

PRIVACY

606.6 PROHIBITED USE

The UAS video surveillance equipment shall not be used:

- To conduct random surveillance activities.
- To target a person based solely on individual characteristics, such as, but not limited to race, ethnicity, national origin, religion, disability, gender or sexual orientation
- To harass, intimidate or discriminate against any individual or group
- To conduct personal business of any type
- The UAS shall not be weaponized